UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Washington, DC

and

UNIVERSITY OF ILLINOIS
Urbana, IL

NOTICE OF RELEASE OF 'TRIPLE NULL SOYBEAN'

The "triple null soybean" is a cross of conventional nulls of lectin, P34, Kunitz trypsin inhibitor to produce a homozygous line of stacked nulls lacking in the immunodominant allergen P34 and the allergen/anti-nutritional proteins Kunitz trypsin inhibitor and lectin.

Material originates from a cross of three different soybean lines developed by Dr. Ted Hymowitz, University of Illinois, and others. The last of the three components the P34 null was developed using a joint grant of Dr. Eliot Herman, USDA-ARS, and Dr. Hymowitz. There are no known disease characteristics.

The anti-nutritional character of soybean and its elimination for animal feed use has long been a priority for soybean stakeholders. In addition soybean is a regulated food allergen (FALPA 2006) for the allergen proteins accumulated in the seed. The present soybean lines are bred to lack three of the major anti-nutritional and/or food allergens as an effort to develop conventionally bred material that may be suitable for inclusion in animal feed including neonatal swine and carnivorous fish. Both of those target uses are specific goals because both have proven production problems that result from soybean intolerance. By modifying the soybean to remove major contributors to soybean intolerance, new test material has been created for challenge feeding studies. The salmon industry is a world-wide $1,000,000,000+ industry, and the swine industry dwarfs that of the salmon. If soybean inclusion rates can be increased there is a large market share available for a soybean more suited to the needs of these industries.

Signatures:

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